

ABSTRACT

A compound centrifugal and screw compressor comprising two separate sections. The first section is a conventional centrifugal compressor body 2 with a plurality of radial vanes 3 and 4 on the front face. The second section of the compressor is a screw type compressor with a plurality of helical vanes 6 mounted on a conical screw body 5; the helical vanes 6 are lesser in number than the short radial vanes 4 and the same in number as the long radial vanes 3, typically one quarter to one third, and mate up with longer radial vanes 3 at the extremity of the centrifugal 2 compressor rim. The conical screw body 5 is the same diameter as the outer rim of the centrifugal compressor and reduces down at the output end. The helical vanes each complete one full turn.

Use Figure 1